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EXAMINER

GAY, JENNIFER HAWKINS

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 03/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/937,399

Applicant(s)

MCGARIAN ET AL.

Examiner

Jennifer H Gay

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the protrusion being a discrete member from and removalby secured to the whipstock as recited in claims 4, 5, 9, 12, and 13 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. Figures 1-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-15 are considered generally confusing and unclear. Specifically, claims 1, 8, and 9 are indefinite because it is unclear as to how applicant defines "relatively steep" and "relatively shallow". Further it is unclear as to how the "protrusion" differs from or is related to the different surfaces.

Claims 1, 8, and 9 are also considered indefinite because, in line 8, it is unclear as to what surfaces "said surface" is referring.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braddick (US 5,551,509, cited by applicant) in view of Swearington et al. (US 5,816,324).

*Regarding claims 1 and 8:* Braddick discloses a whipstock and starter mill system and the method for using that system. The system and method include the following features:

- Casing (10') having an inner and outer diameter.
- A whipstock (80) having a whipface (88) that includes the following where the whipstock is located in a wellbore:
  - A relatively steep ramp surface (98, see Figure 6) and a relatively shallow or parallel ramp surface (surface near element "94" in Figure 6) that meets the steep ramp surface at a junction.
  - The shallow or parallel ramp surface has a surface that is ramped or parallel to the longitudinal axis of the whipstock.
  - The steep ramp surface is at an angle to the longitudinal axis of the whipstock that is greater than that of the shallow or parallel surface.
- A mill assembly (38) used to form a window in the casing (see Figure 7) by being deflected by the steel ramp surface laterally into the casing as the mill is rotated (see col. 8, lines 35-40) and forced along the steep ramp surface toward the shallow or parallel ramp surface.
- A protrusion (94) that is an extension of the steep ramp surface (see Figure 6). The protrusion protects the steep ramp surface of the whipstock (see col. 3, lines 38-43).

- As seen in Figure 6, the diameter of the mill is greater than the distance between the junction and the radially opposite casing wall.

Braddick discloses all of the limitations of the above claims except for the mill assembly being secured to the whipstock. Figure 1 of Braddick and Swearington et al. teach a mill assembly that is attached to the upper most portion of a whipstock. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have connected the mill assembly of Braddick (Figure 3-7) to the whipstock as taught in Figure 1 of Braddick and by Swearington et al. in order to have reduced the cost of the operation by only having to make one run into the wellbore.

*Regarding claim 2:* Braddick discloses all of the limitations of the above claims except for the angel of the cutting surface of the mill assembly being at the same angle as the steep ramp surface. As recited in column 2, lines 45-55 and 64-67, Swearington et al. teaches that the cutting surface of the mill has an angel that matches that of the ramp of the whipstock. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the mill assembly of Braddick so that the angel of the cutting surface of the mill assembly was at the same angle as the steep ramp surface as taught by Swearington et al. in order to have minimized damage to the whipstock face during the cutting of a window in the casing (see col. 2, lines 51-54).

*Regarding claim 3:* As seen in Figure 6, the protrusion is a part of the shallow or parallel ramp surface.

*Regarding claim 6:* The protrusion includes a surface (96) that is at the same angle as the steep ramp surface.

*Regarding claim 7:* Braddick discloses all of the limitations of the above claims except for steep ramp surface and the ramped surface of the protrusion being at 15°. As recited in column 2, lines 43-55 and column 4, lines 39-50, the ramped surface of the whipstock of Swearington et al. is at a 15° angle. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the steep ramp surface that the ramped surface of the protrusion at a 15° angle as taught by Swearington et al. in order to have provided an effective rate of deflection toward the casing wall (see col. 5, lines 12-55).

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braddick (US 5,551,509, cited by applicant) in view of Swearingten et al. (US 5,816,324) as applied to claim 1 above, and further in view of Lee et al. (US 5,826,651).

Braddick and Swearingten et al. disclose all of the limitations of the above claims except for the protrusion being removably connected to the whipstock by a threaded fastener. In column 7, line 49-column 8, line 11, Lee et al. teaches a pilot lug (155) that is secured to the whipstock face by a shear bolt (160) thus the two pieces are discrete components. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the protrusion and the whipstock of Braddick in view of Swearingten et al. as discrete components as taught by Lee et al. in order to have allowed the protrusion to move with the mill so as to provide further, longer lasting protection to the whipstock face.

8. Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braddick (US 5,551,509, cited by applicant) in view of Swearingten et al. (US 5,816,324) in view of Lee et al. (US 5,826,651).

*Regarding claim 9:* Braddick discloses a whipstock and starter mill system. The system includes the following features:

- Casing (10') having an inner and outer diameter.
- A whipstock (80) having a whipface (88) that includes the following where the whipstock is located in a wellbore:
  - A relatively steep ramp surface (98, see Figure 6) and a relatively shallow or parallel ramp surface (surface near element "94" in Figure 6) that meets the steep ramp surface at a junction.
  - The shallow or parallel ramp surface has a surface that is ramped or parallel to the longitudinal axis of the whipstock.
  - The steep ramp surface is at an angle to the longitudinal axis of the whipstock that is greater than that of the shallow or parallel surface.
- A mill assembly (38) used to form a window in the casing (see Figure 7) by being deflected by the steel ramp surface laterally into the casing as the mill is

rotated (see col. 8, lines 35-40) and forced along the steep ramp surface toward the shallow or parallel ramp surface.

- A protrusion (94) that is an extension of the steep ramp surface (see Figure 6). The protrusion protects the steep ramp surface of the whipstock (see col. 3, lines 38-43).
- As seen in Figure 6, the diameter of the mill is greater than the distance between the junction and the radially opposite casing wall.

Braddick discloses all of the limitations of the above claims except for the mill assembly being secured to the whipstock and except for the protrusion and whipstock being discrete components.

Figure 1 of Braddick and Swearington et al. teach a mill assembly that is attached to the upper most portion of a whipstock. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have connected the mill assembly of Braddick (Figure 3-7) to the whipstock as taught in Figure 1 of Braddick and by Swearington et al. in order to have reduced the cost of the operation by only having to make one run into the wellbore.

In column 7, line 49-column 8, line 11, Lee et al. teaches a pilot lug (155) that is secured to the whipstock face by a shear bolt (160) thus the two pieces are discrete components. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the protrusion and the whipstock of Braddick in view of Swearington et al. as discrete components as taught by Lee et al. in order to have allowed the protrusion to move with the mill so as to provide further, longer lasting protection to the whipstock face.

*Regarding claim 10:* Braddick discloses all of the limitations of the above claims except for the angel of the cutting surface of the mill assembly being at the same angle as the steep ramp surface. As recited in column 2, lines 45-55 and 64-67, Swearington et al. teaches that the cutting surface of the mill has an angel that matches that of the ramp of the whipstock. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the mill assembly of Braddick so that the angel of the cutting surface of the mill assembly was at the same angle as the steep ramp surface as taught by Swearington et al.

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in order to have minimized damage to the whipstock face during the cutting of a window in the casing (see col. 2, lines 51-54).

*Regarding claim 11:* As seen in Figure 6, the protrusion is a part of the shallow or parallel ramp surface.

*Regarding claims 12 and 13:* The pilot lug of Lee et al. is connected to the whipstock by a shear bolt thus is removalby secured by a threaded fastener.

*Regarding claim 14:* The protrusion includes a surface (96) that is at the same angle as the steep ramp surface.

*Regarding claim 15:* Braddick discloses all of the limitations of the above claims except for steep ramp surface and the ramped surface of the protrusion being at 15°. As recited in column 2, lines 43-55 and column 4, lines 39-50, the ramped surface of the whipstock of Swearingten et al. is at a 15° angle. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the steep ramp surface that the ramped surface of the protrusion at a 15° angle as taught by Swearingten et al. in order to have provided an effective rate of deflection toward the casing wall (see col. 5, lines 12-55).

### **Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remaining references made of record disclose various whipstocks and mills that include a pilot lug as described above.

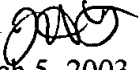
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H Gay whose telephone number is (703) 308-2881. The examiner can normally be reached on Monday-Friday, 6:30-4:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (703) 308-2151. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

JHG   
March 5, 2003

  
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